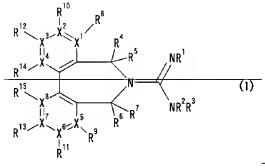
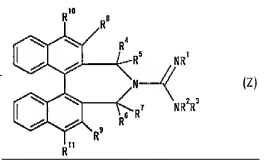
AMENDMENTS TO THE CLAIMS

1. (Currently amended) A guanidine compound having a biaryl skeleton represented by the following ~~formula (1):~~formula (Z):



(1)



(Z)

~~(wherein:~~ wherein

R^1, R^2 and R^3 each independently represent a hydrogen atom, a hydrocarbon group optionally having substituent(s), or a heterocyclic group optionally having substituent(s);

~~R^4 to R^{15}~~ R^4, R^5, R^6, R^7, R^8, R^9, R^{10} and R^{11} each independently represent a hydrogen atom, a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), a hydroxy group, an alkoxy group optionally having substituent(s), an aryloxy group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an aryloxycarbonyl group optionally having substituent(s), a carbamoyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), an arylthiocarbonyl group optionally having substituent(s), a carboxyl group, an alkylthio group optionally having substituent(s), an arylthio group optionally having substituent(s), an amino group or a substituted amino group, a substituted silyl group or a halogen atom

~~, and in any combination of R^4 to R^{15}, these substituents may be taken together to form a ring;~~ and

~~X^1 to X^8 represent a carbon atom~~.

2. (Original) The guanidine compound according to claim 1, which is optically active.

3. (Original) The optically active guanidine compound according to claim 2, which is an optically active form due to axial chirality.

4. (Withdrawn) A method of performing an asymmetric nucleophilic addition reaction, comprising contacting a first compound with a second compound in the presence of the optically active guanidine compound as defined in claim 3.

5. (Withdrawn) The method according to claim 4, which comprises reacting a carbonyl compound or an imine compound with a compound having at least one hydrogen atom on the carbon atom adjacent to an electron-withdrawing group or a nucleophilic agent in the presence of the guanidine compound.

6. (Withdrawn) The method according to claim 5, wherein the carbonyl compound or the imine compound is represented by the following formula (2):

$R^{16}(C=Y)R^{17}$ (2)

wherein R^{16} and R^{17} each independently represent a hydrogen atom, a hydrocarbon group optionally having substituent(s) or a heterocyclic group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an aryloxycarbonyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), an arylthiocarbonyl group optionally having substituent(s) or a carbamoyl group optionally having substituent(s); and Y represents an oxygen atom or NR^{18} wherein R^{18} represents a hydrogen atom, a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an aryloxycarbonyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), an arylthiocarbonyl group optionally having substituent(s), a carbamoyl group optionally having substituent(s) or an amino group optionally having substituent(s).

7. (Withdrawn) The method according to claim 5, wherein the compound having at least one hydrogen atom on the carbon atom adjacent to an electron-withdrawing group is a compound represented by the following formula (3):

$R^{19}R^{20}CHQ^1$ (3)

wherein R^{19} and R^{20} each independently represent a hydrogen atom, a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an alkoxy group optionally having substituent(s), a hydroxy group, an amino group, a substituted amino group, an alkylthio group optionally having substituent(s), an arylthio group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), an aryloxycarbonyl group optionally having substituent(s), an arylthiocarbonyl group optionally having substituent(s), a carbamoyl group optionally having substituent(s), a substituted imino group, a cyano group, a nitro group or a halogen atom; and Q^1 represents an electron-withdrawing group.

8. (Withdrawn) The method according to claim 5, wherein the nucleophilic agent is a cyanide or a phosphonate or a hydroxy-di-substituted phosphine ($HP(=O)(R^{21})_2$ or $HOP(R^{21})_2$), wherein R^{21} represents a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an alkoxy group optionally having substituent(s) or an aryloxy group optionally having substituent(s).

9. (Withdrawn) The method according to claim 7, wherein in the compound of the formula (3), Q^1 represents a nitro group, a cyano group, $C(=O)R^{22}$ (R^{22} represents a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an alkoxy group optionally having substituent(s), an aryloxy group optionally having substituent(s), an alkylthio group optionally having substituent(s), an arylthio group optionally having substituent(s) or an amino group optionally having substituent(s)), or an acyl group derived from a sulfonic acid or a phosphonic acid.

10. (Withdrawn) A method of performing an asymmetric Michael addition reaction, comprising contacting an α,β-unsaturated compound with a compound having at least one hydrogen atom on the carbon atom adjacent to an electron-withdrawing group or a nucleophilic agent in the presence of the optically active guanidine compound as defined in claim 3.

11. (Withdrawn-currently amended) The method according to claim 10, wherein the α,β-unsaturated compound is a compound represented by the following formula (4):

$R^{23}R^{24}C=CR^{25}Q^2$ (4)

wherein R^{23} ~~to R^{25}~~ R^{23}, R^{24} and R^{25} each independently represent a hydrogen atom, a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an aryloxycarbonyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), an arylthiocarbonyl group optionally having substituent(s), a carbamoyl group optionally having substituent(s), a cyano group, a nitro group, a halogen atom, an alkoxy group optionally having substituent(s), an aryloxy group optionally having substituent(s), an alkylthio group optionally having substituent(s) or an arylthio group optionally having substituent(s), and Q^2 represents an electron-withdrawing group, and in any combination of ~~R^{23} to R^{25}~~ R^{23}, R^{24} and R^{25} and Q^2, these substituents may be taken together to form a ring.

12. (Withdrawn) The method according to claim 10, wherein the compound having at least one hydrogen atom on the carbon atom adjacent to an electron-withdrawing group is a compound represented by the formula (3)

$R^{19}R^{20}CHQ^1$ (3)

wherein R^{19} and R^{20} each independently represent a hydrogen atom, a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an alkoxy group optionally having substituent(s), a hydroxy group, an amino group, a substituted amino group, an alkylthio group optionally having substituent(s), an arylthio group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), an aryloxycarbonyl group optionally having substituent(s), an arylthiocarbonyl group optionally having substituent(s), a carbamoyl

group optionally having substituent(s), a substituted imino group, a cyano group, a nitro group or a halogen atom; and Q^1 represents an electron-withdrawing group.

13. (Withdrawn) The method according to claim 10, wherein the nucleophilic agent is a compound represented by the following formula (6):

$R^{26}ZH$ (6)

(wherein Z represents an oxygen atom, a sulfur atom or a nitrogen atom optionally having substituent(s); when Z represents an oxygen atom or a sulfur atom, R^{26} represents a hydrogen atom, a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an amino group optionally having substituent(s), an acyl group or a cyano group; when Z represents a nitrogen atom optionally having substituent(s), R^{26} represents a hydrogen atom, a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an alkoxy group optionally having substituent(s), an aryloxy group optionally having substituent(s), an amino group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an aryloxycarbonyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), an arylthiocarbonyl group optionally having substituent(s), or a carbamoyl group optionally having substituent(s)), a cyanide, an azide, a phosphonate or a hydroxy- di-substituted phosphine ($HP(=O)(R^{21})_2$ or $HOP(R^{21})_2$), wherein R^{21} represents a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an alkoxy group optionally having substituent(s) or an aryloxy group optionally having substituent(s).

14. (Withdrawn) A method of performing an asymmetric epoxidation reaction, comprising contacting a first compound with a second compound in the presence of the guanidine compound as defined in claim 3.

15. (Withdrawn) The method according to claim 14, comprising reacting an α,β-unsaturated compound and a peroxy compound.

16. (Withdrawn-currently amended) The method according to claim 15, wherein the α,β-unsaturated compound is a compound represented by the formula (4)

$R^{23}R^{24}C=CR^{25}Q^2$ (4)

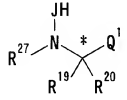
wherein ~~R^{23} to R^{25}~~ R^{23}, R^{24} and R^{25} each independently represent a hydrogen atom, a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an aryloxycarbonyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), an arylthiocarbonyl group optionally having substituent(s), a carbamoyl group optionally having substituent(s), a cyano group, a nitro group, a halogen atom, an alkoxy group optionally having substituent(s), an aryloxy group optionally having substituent(s), an alkylthio group optionally having substituent(s) or an arylthio group optionally having substituent(s), and Q^2 represents an electron-withdrawing group, and in any combination of ~~R^{23} to R^{25}~~ R^{23}, R^{24} and R^{25} and Q^2, these substituents may be taken together to form a ring.

17. (Withdrawn) The method according to claim 15, wherein the peroxy compound is a compound represented by the following formula (7):

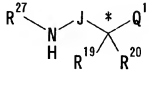
$R^{26}OOH$ (7)

wherein R^{26} represents a hydrogen atom, a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), or an acyl group.

18. (Withdrawn-currently amended) A process for producing an optically active compound represented by the following formula (9a) or (9b):



(9a)



(9b)

(wherein R^{27} represents a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an aryloxycarbonyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), an arylthiocarbonyl group optionally having substituent(s), or a carbamoyl group optionally having substituent(s), and J represents an oxygen atom or NR^{28} (R^{28} represents a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an aryloxycarbonyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), an arylthiocarbonyl group optionally having substituent(s), or a carbamoyl group optionally having substituent(s)); R^{19}, R^{20}, and Q^1 are the same as defined above; and * represents an asymmetric carbon atom,

which comprises reacting a nitrogen-containing compound of the following formula (8):

$$R^{27}N=J \qquad (8),$$

(~~wherein~~ wherein R^{27} and J are the same as defined above, with a compound represented by the following formula (3):

$$R^{19}R^{20}CHQ^1 \qquad (3),$$

(~~wherein~~ wherein R^{19}, R^{20} and Q^1 are the same as defined above, in the presence of the guanidine compound as defined in claim 3.

19. (Withdrawn-currently amended) A process for producing an optically active compound by a dissymmetric procedure, which comprises a Wittig-reaction between a carbonyl compound having a skeleton which has σ symmetry and generates an asymmetric carbon atom after the reaction, and a phosphorus compound represented by the following formula (10):

$$R^{28}R^{29}CHP(=O)R^{30}R^{31} \qquad (10)$$

(~~wherein~~ wherein R^{28} and R^{29} each independently represent a hydrogen atom, a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an alkoxy group optionally having substituent(s), a hydroxy group, a substituted amino group, an alkylthio group optionally having substituent(s), an acyl group, an alkoxycarbonyl group optionally having substituent(s), an alkylthiocarbonyl group optionally having substituent(s), a carbamoyl group optionally having substituent(s), a substituted imino group, a cyano group, a nitro group or a halogen atom, provided that R^{28} and R^{29} are not the same substituent, and R^{30} and R^{31} each independently represent a hydrocarbon group optionally having substituent(s), a heterocyclic group optionally having substituent(s), an alkoxy group optionally having substituent(s) or an aryloxy group optionally having substituent(s) in the presence of the guanidine compound as defined in claim 3.